Application Note

AltiGen IP PBX
SIP Trunk Configuration
Using Cbeyond

June 2007

Introduction

From an administrator's point of view, a SIP trunk is very similar to a Triton analog trunk. Once it is up and running, administrators can assign a trunk access code to it. They also can mix SIP trunks with analog trunks, T1, or PRI trunks in the Out Call Routing table. Like analog trunks, each SIP trunk has a PSTN number. They can also receive caller name as well as caller ID.

Prerequisites

AltiWare 5.1 (ACC or ACM) version 5.1.0.1409 with QuickFix 1411, or above, loaded

Contact your Cbeyond Service Coordinator or refer to the SIPconnect Settings section of the Install Profile to get the following account specific information:

- A SIP Domain – sipconnect.*mkt*0.cbeyond.net

  Note that Cbeyond refers to this as the "SIPconnect Domain". The "*mkt*0" parameter denotes the market served by Cbeyond and location of customer deployment. Valid entries are Atlanta (atl0), Chicago (chi0), Dallas (dal0), Denver (den0), Detroit (det0), Houston (hou0), Los Angeles (lax0), and San Diego (sdg0).

- A SIP Proxy IP address – Note: that this IP address is resolved by doing an nslookup on Cbeyond's SIPconnect Domain.

- A user name – PBX Username field on the Cbeyond Install Profile

- A password – PBX Password field on the Cbeyond Install Profile

- Proxy Port – 5060

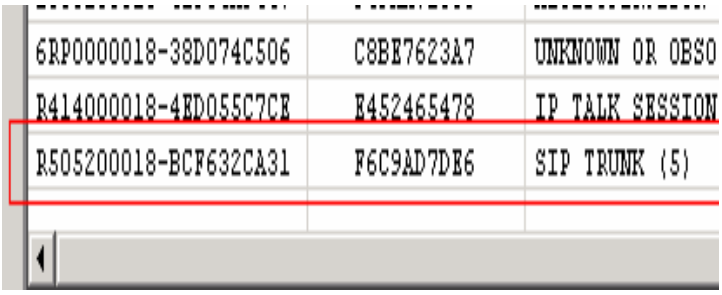
- Registrar Port – 5060

- Register Expiry Time – default (3600)

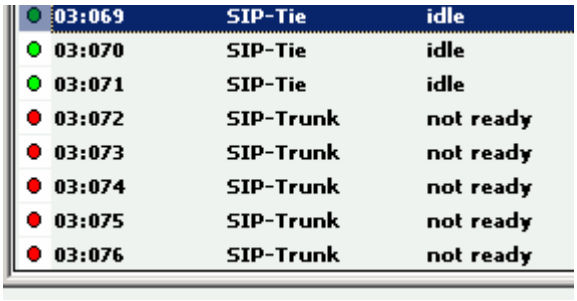
Note: It's better to subscribe to a service provider number that has your same area code. Otherwise, strange behaviors may occur when doing some advanced call features such as redial, call return to a local number and so on.

First Steps

1. Obtain a SIP trunk license from AltiGen.
2. Register the license using AltiGen's online license registration procedure.



3. Reboot AltiServ.
4. After the system is rebooted, **SIP-Trunk** should show as "not ready" in Trunk View.



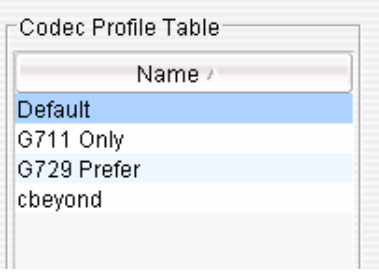
5. If your AltiServ is behind a firewall / NAT router, configure the firewall / NAT router.
   See AltiWare Administrator's online Help: **Index** > **AltiServ behind NAT** > **configuring**.
   If the firewall / NAT router is not properly configured, SIP trunks will not work.

Configuring in AltiEnterprise Manager

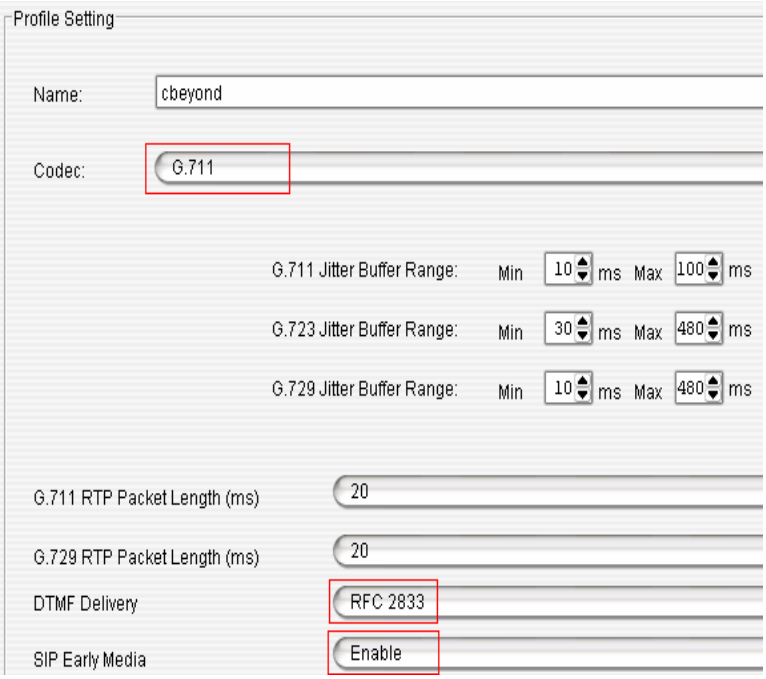
1. Choose **AltiWare Administrator > VoIP > Enterprise Network Management.** This opens AltiEnterprise Manager.

2. In AltiEnterprise Manager, click the **Codec** button.

3. Add a codec profile. In this example, we have named the new profile “cbeyond.”

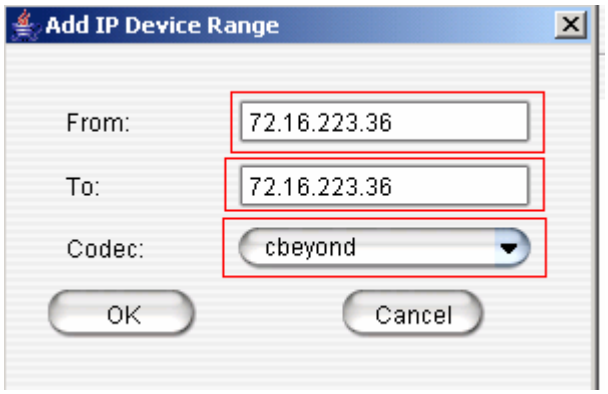


4. Set the following:
   - **Codec** = G.711
   - **DTMF Delivery** = RFC 2833
   - **SIP Early Media** = Enable



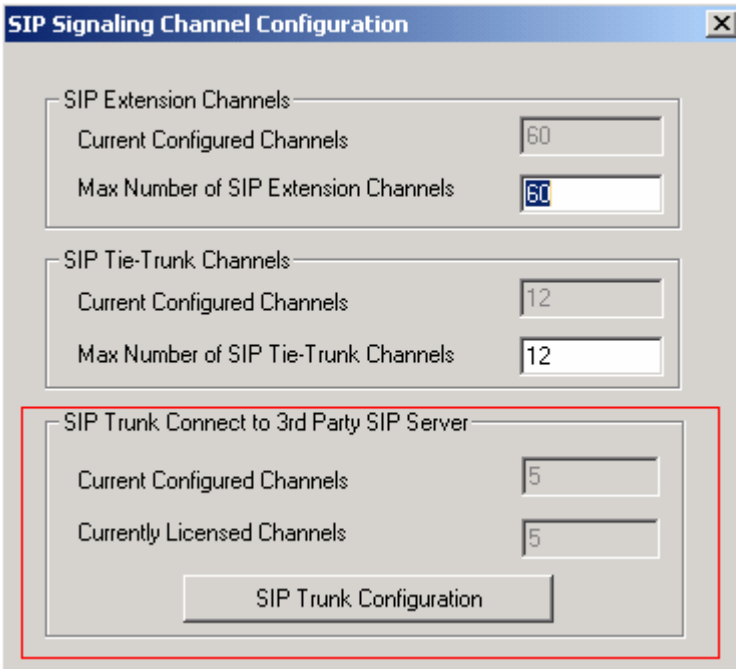
In AltiEnterprise Manager, go to **Servers** button > **IP Codec** tab > **IP Device Range** panel. Add a range, using the SIP Proxy IP address that you got from Cbeyond. Note: that this IP address is resolved by doing an nslookup on Cbeyond's SIPconnect Domain. The SIPconnect Domain is sipconnect.*mkt*0.cbeyond.net. The "*mkt*0" parameter denotes the market served by Cbeyond and location of customer deployment. Valid entries are Atlanta (atl0), Chicago (chi0), Dallas (dal0), Denver (den0), Detroit (det0), Houston (hou0), Los Angeles (lax0), and San Diego (sdg0). In the example below, we are using 72.16.223.36. The range we add is:

- **From**: 72.16.223.36
- **To**: 72.16.223.36
- Set **Codec** as "cbeyond."



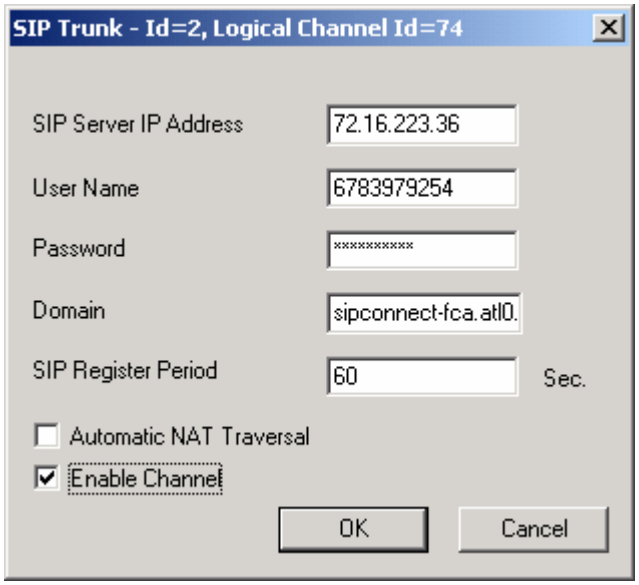
Configuring in AltiWare Administrator

1. Under “SIPSP” board configuration, the number of configured channels and licensed channels are displayed. In this example, there are 5 SIP trunk channels.



2. Click the **SIP Trunk Configuration** button. The SIP Trunk Configuration dialog box opens.

3. Highlight an entry in the dialog box, and then click **Edit**. The following dialog box opens:

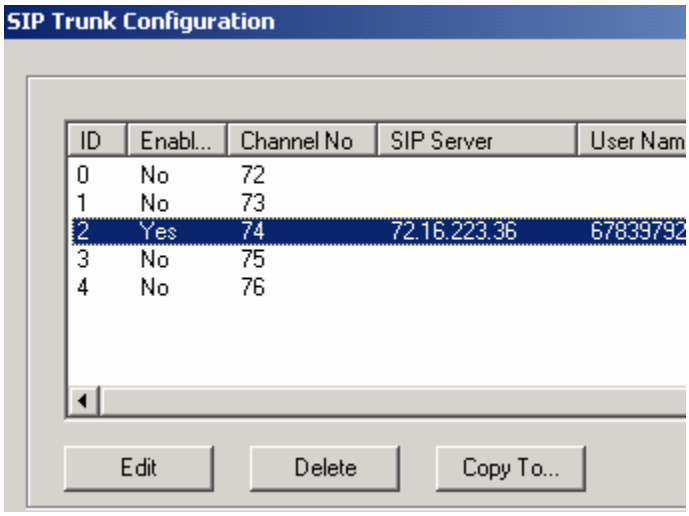


4. Enter the SIP Server IP Address, User Name, Password, Domain and SIP Register Period. This account information is obtained from Cbeyond.

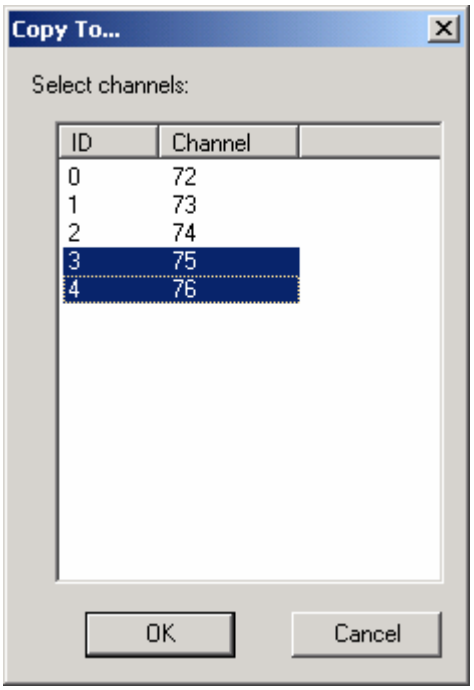
5. Uncheck **Automatic NAT Traversal** and check **Enable Channel**.

If multiple SIP trunks are subscribed, follow the steps below to copy the same settings to other SIP channels.

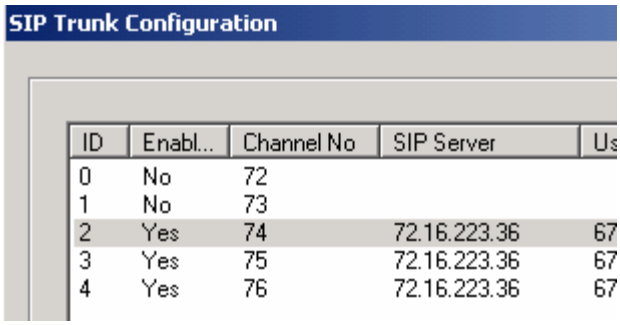
1. Highlight the source entry.



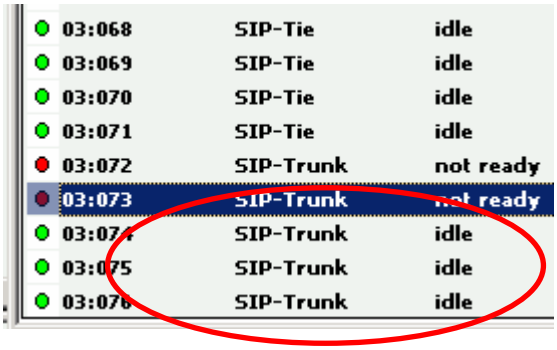
2. Click the **Copy To** button.



3. Highlight the destination channels and click **OK**.



In Trunk View, the SIP trunks will be displayed as **idle**. The SIP trunks are ready to use.



Configuring SIP trunks (trunk access code, in call routing, outcall routing, and so on) is similar to configuring analog trunks or T1/PRI trunks. See AltiWare Administrator online Help under “Trunk Configuration,” or see the *AltiWare Administration Manual*, “Trunk Configuration” chapter.

Verify Configuration

To verify the configuration and make sure the voice can be heard in both directions,

1. Make a call through the SIP-Trunk.
2. Receive a call through the SIP-Trunk (for convenience, you might want to call from your cell phone for this).
3. If you have several SIP-Trunks, make/receive several calls at the same time.

If the voice is not heard in both directions, please review the configuration steps to make sure you have configured properly. If you still have a problem, contact Cbeyond or AltiGen Communications.

Support

AltiGen Technical Support
510-252-9712
https://dealer.altigen.com

Cbeyond Support

Before or During Service Activation

Please contact your Cbeyond Service Coordinator if you need assistance

Post Service Activation

Please contact the Cbeyond Customer Support Center:

www.cbeyondonline.net
Anytime access to web-enabled account tools.

customer.care@cbeyond.net
Billing & Account Management
M-F — 8am-10pm (EST)
1-866-424-5100

technical.support@cbeyond.net
24-hour Technical Support or Call
1-866-424-5100